

## Table ENG-4. - Building Site Development

Rockingham County, Virginia

The information in this table indicates the dominant soil condition, but does not eliminate the need for onsite investigation. The numbers in the value column range from 0.01 to 1.00. The larger the value, the greater the potential limitation. Limiting features in this report are limited to the top 5 limitations. Additional limitations may exist.

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
1B: Allegheny	80	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
2B: Allegheny	85	Not limited		Somewhat limited Cutbanks cave	0.10	Somewhat limited Content of large stones	0.32
3B: Allegheny	50	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Monongahela	35	Somewhat limited Frost action Depth to saturated zone	0.50 0.03	Very limited Depth to saturated zone Depth to thin cemented pan Cutbanks cave	1.00 0.90 0.10	Somewhat limited Depth to cemented pan Depth to saturated zone	0.90 0.03
Purdy	3	Not Rated		Not Rated		Not Rated	
Wet spots	2	Not Rated		Not Rated		Not Rated	
4A: Aquic Udifluvents	80	Very limited Flooding Low strength	1.00 1.00	Not Rated		Not Rated	
5C2: Berks	55	Somewhat limited Slope Depth to hard bedrock	0.37 0.35	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 0.37 0.10	Somewhat limited Droughty Gravel content Slope	0.93 0.71 0.37
Weikert	25	Very limited Depth to hard bedrock Depth to soft bedrock Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Depth to soft bedrock Slope	1.00 1.00 0.37	Very limited Depth to bedrock Droughty Gravel content	1.00 1.00 0.83
5D2: Berks	50	Very limited Slope Depth to hard bedrock	1.00 0.35	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Slope Droughty Gravel content	1.00 0.93 0.71

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
5D2:							
Weikert	35	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to thick cemented pan	1.00	Droughty	1.00
Wet spots	3	Not Rated		Not Rated		Not Rated	
6C2:							
Berks	65	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Depth to hard bedrock	1.00	Droughty	0.93
		Depth to hard bedrock	0.35	Slope	0.37	Gravel content	0.71
				Cutbanks cave	0.10	Slope	0.37
Weikert	25	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Droughty	1.00
		Frost action	0.50	Slope	0.37	Gravel content	0.83
Wet spots	3	Not Rated		Not Rated		Not Rated	
6D2:							
Berks	55	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
				Cutbanks cave	0.10	Gravel content	0.71
Weikert	35	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Droughty	1.00
Wet spots	3	Not Rated		Not Rated		Not Rated	
7A:							
Buchanan	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	0.99	Depth to thick cemented pan	1.00	Depth to cemented pan	0.99
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.48
		Depth to saturated zone	0.48	Cutbanks cave	0.10	Droughty	0.41
Purdy	5	Not Rated		Not Rated		Not Rated	

8B:

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
8B:							
Buchanan	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	0.99	Depth to thick cemented pan	1.00	Depth to cemented pan	0.99
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.48
		Depth to saturated zone	0.48	Cutbanks cave	0.10	Droughty	0.48
Purdy	5	Not Rated		Not Rated		Not Rated	
8C:							
Buchanan	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	0.99	Depth to thick cemented pan	1.00	Depth to cemented pan	0.99
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.48
		Depth to saturated zone	0.48	Slope	0.37	Droughty	0.48
Purdy	5	Not Rated		Not Rated		Not Rated	
9C:							
Buchanan	75	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	0.99	Depth to thick cemented pan	1.00	Depth to cemented pan	0.99
		Frost action	0.50	Depth to saturated zone	1.00	Depth to saturated zone	0.48
		Depth to saturated zone	0.48	Slope	0.37	Droughty	0.48
Purdy	5	Not Rated		Not Rated		Not Rated	
10A:							
Buckton	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Frost action	0.50	Cutbanks cave	0.10		
		Low strength	0.22				
Wet spots	3	Not Rated		Not Rated		Not Rated	
11B:							
Burketown	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to thick cemented pan	0.90	Depth to thick cemented pan	1.00	Depth to cemented pan	0.90
		Frost action	0.50	Depth to saturated zone	0.99	Droughty	0.36
				Depth to dense layer	0.50		
Wet spots	3	Not Rated		Not Rated		Not Rated	
12B:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
12B:							
Carbo	35	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.29
		Shrink-swell	1.00	Too clayey	1.00		
		Frost action	0.50	Cutbanks cave	0.10		
Endcav	30	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.97		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50	Depth to hard bedrock	0.02		
Rock outcrop	25	Not Rated		Not Rated		Not Rated	
12C:							
Carbo	30	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to hard bedrock	1.00	Slope	0.37
		Shrink-swell	1.00	Too clayey	1.00	Depth to bedrock	0.29
		Frost action	0.50	Slope	0.37		
Endcav	30	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.97	Slope	0.37
		Shrink-swell	1.00	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Rock outcrop	25	Not Rated		Not Rated		Not Rated	
13A:							
Chavies	70	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Cutbanks cave	0.10		
Wet spots	5	Not Rated		Not Rated		Not Rated	
14B2:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Too clayey	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.84
Wet spots	3	Not Rated		Not Rated		Not Rated	
14C2:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Too clayey	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
		Frost action	0.50	Slope	0.37	Depth to bedrock	0.84
Wet spots	3	Not Rated		Not Rated		Not Rated	
14D2:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
14D2:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Shrink-swell	1.00	Slope	1.00	Too clayey	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
Wet spots	3	Not Rated		Not Rated		Not Rated	
15B2:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Too clayey	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
		Frost action	0.50	Cutbanks cave	0.10	Depth to bedrock	0.84
15C2:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Too clayey	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
		Frost action	0.50	Slope	0.37	Depth to bedrock	0.84
Wet spots	3	Not Rated		Not Rated		Not Rated	
15D2:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Shrink-swell	1.00	Slope	1.00	Too clayey	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
Wet spots	3	Not Rated		Not Rated		Not Rated	
16E3:							
Chilhowie	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Too clayey	1.00
		Shrink-swell	1.00	Slope	1.00	Slope	1.00
		Depth to hard bedrock	0.84	Too clayey	1.00	Droughty	0.97
Wet spots	3	Not Rated		Not Rated		Not Rated	
17B2:							
Chilhowie	40	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Droughty	0.97
		Depth to hard bedrock	0.84	Too clayey	1.00	Depth to bedrock	0.84
		Frost action	0.50	Cutbanks cave	0.10		
Edom	40	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.88		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				

17C2:

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
17C2:							
Chilhowie	40	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to hard bedrock	1.00	Droughty	0.97
		Depth to hard bedrock	0.84	Too clayey	1.00	Depth to bedrock	0.84
		Frost action	0.50	Slope	0.37	Slope	0.37
Edom	40	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.88	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
17D2:							
Chilhowie	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Shrink-swell	1.00	Slope	1.00	Droughty	0.97
		Depth to hard bedrock	0.84	Too clayey	1.00	Depth to bedrock	0.84
Edom	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.88		
		Shrink-swell	0.50	Cutbanks cave	0.10		
18B:							
Cotaco	75	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10		
Purdy	5	Not Rated		Not Rated		Not Rated	
19B:							
Cotaco	75	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10	Gravel content	0.05
Purdy	5	Not Rated		Not Rated		Not Rated	
20B:							
Cotaco variant	75	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Content of large stones	1.00
		Low strength	1.00	Too clayey	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Purdy	5	Not Rated		Not Rated		Not Rated	
21B:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
21B:							
Craigsville	75	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Content of large stones	0.98	Flooding	1.00
		Content of large stones	0.98	Flooding	0.80	Content of large stones	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.06
Wet spots	5	Not Rated		Not Rated		Not Rated	
22F:							
Drall	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.86
						Content of large stones	0.32
23B2:							
Edom	80	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.88		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Wet soils	3	Not Rated		Not Rated		Not Rated	
23C2:							
Edom	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.88	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Wet soils	3	Not Rated		Not Rated		Not Rated	
23D2:							
Edom	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.88		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Wet soils	3	Not Rated		Not Rated		Not Rated	
24B2:							
Endcav	80	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.97		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50	Depth to hard bedrock	0.02		
Wet soils	3	Not Rated		Not Rated		Not Rated	
24C2:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
24C2:							
Endcav	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.97	Slope	0.37
		Shrink-swell	1.00	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Wet soils	3	Not Rated		Not Rated		Not Rated	
25B2:							
Endcav	80	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.97		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50	Depth to hard bedrock	0.02		
Wet soils	3	Not Rated		Not Rated		Not Rated	
25C2:							
Endcav	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.97	Slope	0.37
		Shrink-swell	1.00	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Wet soils	3	Not Rated		Not Rated		Not Rated	
26C2:							
Fauquier	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	0.50	Too clayey	0.28		
		Frost action	0.50	Cutbanks cave	0.10		
26D2:							
Fauquier	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
27E:							
Fauquier	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
28A:							
Fluvaquents	80	Very limited		Not Rated		Not Rated	
		Flooding	1.00				
		Depth to saturated zone	1.00				
		Low strength	1.00				
Poorly drained soils	5	Not Rated		Not Rated		Not Rated	



# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
29B2:							
Frederick	50	Very limited		Very limited		Not limited	
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
Lodi	35	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
29C2:							
Frederick	45	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	1.00	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Lodi	35	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	0.50	Too clayey	0.28		
		Frost action	0.50	Cutbanks cave	0.10		
29D2:							
Frederick	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lodi	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
29E2:							
Frederick	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lodi	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
30C3:							
Frederick	50	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	1.00	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
30C3:							
Lodi	35	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	0.50	Too clayey	0.28		
		Frost action	0.50	Cutbanks cave	0.10		
30D3:							
Frederick	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lodi	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
31B2:							
Frederick	50	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Gravel content	0.26
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
Lodi	35	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.28	Gravel content	0.44
		Shrink-swell	0.50	Cutbanks cave	0.10	Content of large stones	0.03
		Frost action	0.50				
31C2:							
Frederick	45	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	1.00	Slope	0.37	Gravel content	0.26
		Frost action	0.50	Cutbanks cave	0.10		
Lodi	35	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Gravel content	0.44
		Shrink-swell	0.50	Too clayey	0.28	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	0.03
31D2:							
Frederick	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00	Gravel content	0.26
		Shrink-swell	1.00	Cutbanks cave	0.10		

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
31D2: Lodi	40	Very limited Slope Low strength Shrink-swell	 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	 1.00 0.28 0.10	Very limited Slope Gravel content Content of large stones	 1.00 0.44 0.03
31E2: Frederick	50	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope Gravel content	 1.00 0.26
Lodi	40	Very limited Slope Low strength Shrink-swell	 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	 1.00 0.28 0.10	Very limited Slope Gravel content Content of large stones	 1.00 0.44 0.03
32C: Frederick	40	Very limited Low strength Shrink-swell Frost action	 1.00 1.00 0.50	Very limited Too clayey Slope Cutbanks cave	 1.00 0.37 0.10	Very limited Gravel content Slope	 1.00 0.37
Lodi	40	Very limited Low strength Shrink-swell Frost action	 1.00 0.50 0.50	Somewhat limited Slope Too clayey Cutbanks cave	 0.37 0.28 0.10	Somewhat limited Gravel content Content of large stones Slope	 0.88 0.68 0.37
32D: Frederick	45	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope Gravel content	 1.00 1.00
Lodi	35	Very limited Slope Low strength Shrink-swell	 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	 1.00 0.28 0.10	Very limited Slope Gravel content Content of large stones	 1.00 0.88 0.68
32E: Frederick	45	Very limited Slope Low strength Shrink-swell	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 1.00 0.10	Very limited Slope Gravel content	 1.00 1.00

**Table ENG-4. - Building Site Development - Continued**

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
32E:							
Lodi	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28	Gravel content	0.88
		Shrink-swell	0.50	Cutbanks cave	0.10	Content of large stones	0.68
33B2:							
Frederick	50	Very limited		Very limited		Not limited	
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
Lodi	35	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
33C2:							
Frederick	45	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	1.00	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Lodi	40	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	0.50	Too clayey	0.28		
		Frost action	0.50	Cutbanks cave	0.10		
33D2:							
Frederick	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lodi	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
33E2:							
Frederick	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Lodi	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
34C:							
Frederick	35	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.04
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50	Slope	0.04		
Rock outcrop	35	Not Rated		Not Rated		Not Rated	
34E:							
Frederick	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Rock outcrop	35	Not Rated		Not Rated		Not Rated	
35B:							
Guernsey	85	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.03
		Shrink-swell	1.00	Too clayey	0.88		
		Depth to saturated zone	0.03	Cutbanks cave	0.10		
Poorly drained soils	3	Not Rated		Not Rated		Not Rated	
36B:							
Hawksbill	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Content of large stones	1.00
		Content of large stones	1.00	Content of large stones	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Droughty	0.02
Wet spots	5	Not Rated		Not Rated		Not Rated	
37B:							
Hawksbill	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Content of large stones	1.00
		Content of large stones	1.00	Content of large stones	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Gravel content	0.37
Wet spots	5	Not Rated		Not Rated		Not Rated	
38C:							
Hawksbill	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Content of large stones	1.00
		Content of large stones	1.00	Content of large stones	1.00	Flooding	0.60
		Frost action	0.50	Flooding	0.60	Slope	0.37
Wet spots	5	Not Rated		Not Rated		Not Rated	

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
39B: Laidig	80	Somewhat limited Frost action	0.50	Somewhat limited Depth to thick cemented pan Depth to saturated zone Cutbanks cave	0.99 0.90 0.10	Somewhat limited Gravel content	0.26
39C: Laidig	80	Somewhat limited Frost action Slope	0.50 0.37	Somewhat limited Depth to thick cemented pan Depth to saturated zone Slope	0.99 0.90 0.37	Somewhat limited Slope Gravel content	0.37 0.26
40B: Laidig	80	Somewhat limited Frost action	0.50	Somewhat limited Depth to thick cemented pan Depth to saturated zone Cutbanks cave	0.99 0.90 0.10	Somewhat limited Content of large stones Gravel content	0.68 0.39
40C: Laidig	80	Somewhat limited Frost action Slope	0.50 0.37	Somewhat limited Depth to thick cemented pan Depth to saturated zone Slope	0.99 0.90 0.37	Somewhat limited Content of large stones Gravel content Slope	0.68 0.39 0.37
40D: Laidig	80	Very limited Slope Frost action	1.00 0.50	Very limited Slope Depth to thick cemented pan Depth to saturated zone	1.00 0.99 0.90	Very limited Slope Content of large stones Gravel content	1.00 0.68 0.39
40E: Laidig	80	Very limited Slope Frost action	1.00 0.50	Very limited Slope Depth to thick cemented pan Depth to saturated zone	1.00 0.99 0.90	Very limited Slope Content of large stones Gravel content	1.00 0.68 0.39
41C:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
41C: Laidig	80	Somewhat limited Frost action Slope	0.50 0.37	Somewhat limited Depth to thick cemented pan Depth to saturated zone Slope	0.99 0.90 0.37	Somewhat limited Slope	0.37
41D: Laidig	80	Very limited Slope Frost action	1.00 0.50	Very limited Slope Depth to thick cemented pan Depth to saturated zone	1.00 0.99 0.90	Very limited Slope	1.00
41E: Laidig	80	Very limited Slope Frost action	1.00 0.50	Very limited Slope Depth to thick cemented pan Depth to saturated zone	1.00 0.99 0.90	Very limited Slope	1.00
42C: Laidig	50	Somewhat limited Slope Frost action	0.96 0.50	Somewhat limited Depth to thick cemented pan Slope Depth to saturated zone	0.99 0.96 0.90	Somewhat limited Slope	0.96
Buchanan	40	Very limited Depth to thick cemented pan Slope Frost action	0.99 0.96 0.50	Very limited Depth to thick cemented pan Depth to saturated zone Slope	1.00 1.00 0.96	Very limited Depth to cemented pan Slope Depth to saturated zone	0.99 0.96 0.48
43C: Lehew	35	Somewhat limited Depth to hard bedrock Slope	0.54 0.16	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 0.16 0.10	Somewhat limited Droughty Content of large stones Depth to bedrock	0.78 0.68 0.54
Dekalb	30	Somewhat limited Depth to hard bedrock Slope Content of large stones	0.46 0.16 <0.01	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 0.16 0.10	Somewhat limited Droughty Content of large stones Depth to bedrock	0.80 0.68 0.46

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
43C:							
Calvin	25	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.79	Depth to hard bedrock	1.00	Depth to bedrock	0.80
		Frost action	0.50	Slope	0.16	Content of large stones	0.68
		Slope	0.16	Cutbanks cave	0.10	Droughty	0.49
43D:							
Lehew	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.54	Depth to hard bedrock	1.00	Droughty	0.78
		Slope	0.16	Slope	0.16	Content of large stones	0.68
				Cutbanks cave	0.10	Depth to bedrock	0.54
Dekalb	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Droughty	0.80
		Slope	0.16	Slope	0.16	Content of large stones	0.68
		Content of large stones	<0.01	Cutbanks cave	0.10	Depth to bedrock	0.46
Calvin	25	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.79	Depth to hard bedrock	1.00	Depth to bedrock	0.80
		Frost action	0.50	Slope	0.16	Content of large stones	0.68
		Slope	0.16	Cutbanks cave	0.10	Droughty	0.49
44E:							
Lehew	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Droughty	0.78
				Cutbanks cave	0.10	Content of large stones	0.68
Dekalb	25	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Droughty	0.80
		Content of large stones	<0.01	Cutbanks cave	0.10	Content of large stones	0.68
Calvin	20	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.79	Slope	1.00	Depth to bedrock	0.80
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	0.68
44F:							
Lehew	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.54	Slope	1.00	Droughty	0.78
				Cutbanks cave	0.10	Content of large stones	0.68



# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
44F:							
Dekalb	25	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Droughty	0.80
		Content of large stones	<0.01	Cutbanks cave	0.10	Content of large stones	0.68
Calvin	20	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.79	Slope	1.00	Depth to bedrock	0.80
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	0.68
45A:							
Massanetta	90	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.99	Flooding	0.60
		Low strength	0.78	Flooding	0.60		
		Frost action	0.50	Too clayey	0.13		
Wet spots	5	Not Rated		Not Rated		Not Rated	
46A:							
Millrock	65	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	1.00
				Flooding	0.80	Droughty	0.92
Wet spots	5	Not Rated		Not Rated		Not Rated	
47B:							
Monongahela	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.90
		Depth to saturated zone	0.03	Depth to thin cemented pan	0.90	Depth to saturated zone	0.03
				Cutbanks cave	0.10		
Purdy	5	Not Rated		Not Rated		Not Rated	
47C2:							
Monongahela	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.90
		Slope	0.37	Depth to thin cemented pan	0.90	Slope	0.37
		Depth to saturated zone	0.03	Slope	0.37	Depth to saturated zone	0.03
Purdy	5	Not Rated		Not Rated		Not Rated	
48B:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
48B:							
Monongahela	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.90
		Depth to saturated zone	0.03	Depth to thin cemented pan	0.90	Gravel content	0.26
				Cutbanks cave	0.10	Depth to saturated zone	0.03
Purdy	5	Not Rated		Not Rated		Not Rated	
48C:							
Monongahela	75	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to saturated zone	1.00	Depth to cemented pan	0.90
		Slope	0.37	Depth to thin cemented pan	0.90	Slope	0.37
		Depth to saturated zone	0.03	Slope	0.37	Gravel content	0.26
Purdy	5	Not Rated		Not Rated		Not Rated	
49C:							
Myersville	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	0.88	Slope	0.37
		Slope	0.37	Slope	0.37	Droughty	<0.01
				Cutbanks cave	0.10	Content of large stones	<0.01
49D:							
Myersville	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to hard bedrock	0.88	Droughty	<0.01
				Cutbanks cave	0.10	Content of large stones	<0.01
49F:							
Myersville	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to hard bedrock	0.88	Droughty	<0.01
				Cutbanks cave	0.10	Content of large stones	<0.01
50B:							
Nixa	40	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to cemented pan	1.00
				Cutbanks cave	1.00	Droughty	0.99
						Gravel content	0.22

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
50B:							
Frederick	35	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Gravel content	0.26
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
Lodi	15	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.28	Gravel content	0.44
		Shrink-swell	0.50	Cutbanks cave	0.10	Content of large stones	0.03
		Frost action	0.50				
Wet spots	3	Not Rated		Not Rated		Not Rated	
50C:							
Nixa	35	Very limited		Very limited		Very limited	
		Depth to thick cemented pan	1.00	Depth to thick cemented pan	1.00	Depth to cemented pan	1.00
		Slope	0.37	Cutbanks cave Slope	1.00 0.37	Droughty Slope	0.99 0.37
Frederick	30	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	1.00	Slope	0.37	Gravel content	0.26
		Frost action	0.50	Cutbanks cave	0.10		
Lodi	25	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Gravel content	0.44
		Shrink-swell	0.50	Too clayey	0.28	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	0.03
Wet spots	3	Not Rated		Not Rated		Not Rated	
51:							
Pits	100	Not limited		Not Rated		Not Rated	
52:							
Pits	100	Not limited		Not Rated		Not Rated	
53:							
Pits and dumps	100	Not Rated		Not Rated		Not Rated	
54A:							
Purdy	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Ponding	1.00	Ponding	1.00
		Low strength	1.00	Cutbanks cave	0.10		
Very poorly drained soils	5	Not Rated		Not Rated		Not Rated	
55C:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
55C:							
Rock outcrop	40	Not Rated		Not Rated		Not Rated	
Carbo	35	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.29
		Shrink-swell	1.00	Too clayey	1.00	Slope	0.16
		Frost action	0.50	Slope	0.16		
56C:							
Rock outcrop	45	Not Rated		Not Rated		Not Rated	
Frederick	30	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.04
		Shrink-swell	1.00	Cutbanks cave	0.10		
		Frost action	0.50	Slope	0.04		
56D:							
Rock outcrop	50	Not Rated		Not Rated		Not Rated	
Frederick	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	1.00	Cutbanks cave	0.10		
57E:							
Rock outcrop	45	Not Rated		Not Rated		Not Rated	
Laidig	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Depth to thick cemented pan	0.99	Gravel content	0.26
				Depth to saturated zone	0.90		
58B2:							
Sequoia	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Depth to bedrock	0.06
		Shrink-swell	0.50	Cutbanks cave	0.10		
				Depth to soft bedrock	0.06		
Wet soils	3	Not Rated		Not Rated		Not Rated	
58C2:							
Sequoia	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37	Depth to bedrock	0.06
		Slope	0.37	Cutbanks cave	0.10		
Wet soils	3	Not Rated		Not Rated		Not Rated	
59B2:							

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
59B2:							
Sequoia	55	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Depth to bedrock	0.06
		Shrink-swell	0.50	Cutbanks cave	0.10		
				Depth to soft bedrock	0.06		
Berks	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.35	Depth to hard bedrock	1.00	Droughty	0.93
				Cutbanks cave	0.10	Gravel content	0.71
						Depth to bedrock	0.35
Wet soils	3	Not Rated		Not Rated		Not Rated	
59C2:							
Sequoia	55	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37	Depth to bedrock	0.06
		Slope	0.37	Cutbanks cave	0.10		
Berks	40	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Depth to hard bedrock	1.00	Droughty	0.93
		Depth to hard bedrock	0.35	Slope	0.37	Gravel content	0.71
				Cutbanks cave	0.10	Slope	0.37
59D2:							
Sequoia	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.50	Depth to bedrock	0.06
		Shrink-swell	0.50	Cutbanks cave	0.10		
Berks	35	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
				Cutbanks cave	0.10	Gravel content	0.71
Wet soils	3	Not Rated		Not Rated		Not Rated	
60C:							
Sequoia	50	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37	Depth to bedrock	0.06
		Slope	0.37	Cutbanks cave	0.10		
Berks	40	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Depth to hard bedrock	1.00	Droughty	0.93
		Depth to hard bedrock	0.35	Slope	0.37	Gravel content	0.71
				Cutbanks cave	0.10	Slope	0.37
Wet soils	3	Not Rated		Not Rated		Not Rated	

60D:

**Table ENG-4. - Building Site Development - Continued**

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
60D:							
Sequoia	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.50	Depth to bedrock	0.06
		Shrink-swell	0.50	Cutbanks cave	0.10		
Berks	45	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
			Cutbanks cave	0.10	Gravel content	0.71	
Wet soils	3	Not Rated		Not Rated		Not Rated	
61B:							
Shelocta variant	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.28	Content of large stones	0.54
		Shrink-swell	0.50	Cutbanks cave	0.10	Gravel content	0.45
		Frost action	0.50				
Wet spots	3	Not Rated		Not Rated		Not Rated	
62C:							
Shelocta variant	75	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.28	Content of large stones	0.54
		Shrink-swell	0.50	Slope	0.16	Gravel content	0.45
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.16
Wet spots	3	Not Rated		Not Rated		Not Rated	
63B:							
Shenval	75	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.97		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
63C2:							
Shenval	75	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.97	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
63D2:							
Shenval	70	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.97		
		Shrink-swell	0.50	Cutbanks cave	0.10		

64C:

**Table ENG-4. - Building Site Development - Continued**

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
64C:							
Sherando	85	Somewhat limited		Very limited		Very limited	
		Content of large stones	0.54	Cutbanks cave	1.00	Content of large stones	1.00
		Slope	0.37	Content of large stones	0.54	Droughty	0.83
				Slope	0.37	Slope	0.37
64D:							
Sherando, COBBLY	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Content of large stones	0.54	Cutbanks cave	1.00	Content of large stones	1.00
				Content of large stones	0.54	Droughty	0.83
65B2:							
Swimley	80	Very limited		Very limited		Not limited	
		Low strength	1.00	Too clayey	1.00		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Wet spots	3	Not Rated		Not Rated		Not Rated	
65C2:							
Swimley	75	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Too clayey	1.00	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Wet spots	3	Not Rated		Not Rated		Not Rated	
66D:							
Sylco	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.87
		Depth to hard bedrock	0.16	Cutbanks cave	0.10	Depth to bedrock	0.16
66E:							
Sylco	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.87
		Depth to hard bedrock	0.16	Cutbanks cave	0.10	Depth to bedrock	0.16
67F:							
Sylco	80	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Gravel content	0.87
		Depth to hard bedrock	0.16	Cutbanks cave	0.10	Depth to bedrock	0.16

68B:

# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
68B:							
Timberville variant	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	1.00
		Low strength	1.00	Flooding	0.80		
		Frost action	0.50	Too clayey	0.32		
69A:							
Tioga	75	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
		Flooding	0.40	Depth to saturated zone	0.35		
70A:							
Typic Udorthents	80	Not limited		Not Rated		Not Rated	
71B2:							
Unison	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.20
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
71C2:							
Unison	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37	Content of large stones	0.20
		Frost action	0.50	Cutbanks cave	0.10		
72B2:							
Unison	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.92
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50			Gravel content	0.08
72C2:							
Unison	80	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.92
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.37
						Gravel content	0.08
72D2:							
Unison	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.92
		Shrink-swell	0.50	Cutbanks cave	0.10		
						Gravel content	0.08
73:							
Urban land	100	Not Rated		Not Rated		Not Rated	



# Table ENG-4. - Building Site Development - Continued

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
74E2:							
Weikert	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Droughty	1.00
Berks	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
			Cutbanks cave	0.10	Gravel content	0.71	
Wet spots	3	Not Rated		Not Rated		Not Rated	
74F2:							
Weikert	50	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Droughty	1.00
Berks	45	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
			Cutbanks cave	0.10	Gravel content	0.71	
75E2:							
Weikert	45	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Droughty	1.00
Berks	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
			Cutbanks cave	0.10	Depth to bedrock	0.35	
75F2:							
Weikert	50	Very limited		Very limited		Very limited	
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Droughty	1.00
Berks	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.35	Slope	1.00	Droughty	0.93
			Cutbanks cave	0.10	Depth to bedrock	0.35	
Wet spots	3	Not Rated		Not Rated		Not Rated	

76A:

**Table ENG-4. - Building Site Development - Continued**

Rockingham County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
76A:							
Wheeling	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
		Flooding	0.40				
W:							
Water	100	Not Rated		Not Rated		Not Rated	